

**REMARKS**

This is a response to the Office Action mailed March 7, 2005. Claims 46-51, 53, and 54 are pending in the application. Claims 46-53 have been rejected by the Examiner. Claims 46 and 53 have been amended. Claim 54 has been added. As noted above, applicants have canceled claims 18-45 and 52.

**Double Patenting**

Claims 46-53 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-14 of U.S. Patent No. 6,695,920.

A terminal disclaimer is co-filed herewith. Applicants kindly request removal of the rejection of claims 46-51 and 53 and allowance of the claims. Applicants have deleted claim 52.

**Claim Rejections 35 U.S.C. § 102**

The Examiner has rejected Claim 51 under 35 U.S.C. § 102(e) as being unpatentable over Taylor et al. (U.S. Patent No. 6,214,115). Applicant respectfully disagrees.

In the Response to Arguments, the Examiner states that "Taylor et al recognize placement of at least one protrusion or gear (15). The protrusion or gear is placed thereon by the user as evidenced by the other mandrels having no protrusion or gear." The fact that a "protrusion or gear" is placed on the mandrel does necessarily mean that the "protrusion or gear" is "adjustably supported by the mandrel." Once a "protrusion or gear" is placed on a mandrel, it could be permanently affixed or adjustable. Furthermore, a "protrusion or gear" is not "supported by the mandrel" until after the gear has been placed onto the mandrel. Thus, support of the "protrusion

or gear” by the mandrel does not occur simultaneously with placement of the “protrusion or gear” on the mandrel.

Therefore, Taylor et al. do not teach or suggest the feature of claim 51 “a gear adjustably supported by the mandrel and configured to contact an inner surface of the stent.” Therefore, Claim 51 is patentably allowable over Taylor et al. Please remove the anticipation rejection of claim 51.

**Claim Rejections 35 U.S.C. § 103**

The Examiner has rejected Claims 46-50 under 35 U.S.C. § 103(a) as being unpatentable by over Edwin et al. (U.S. Patent No. 6,245,099) in view of Leidner et al. (U.S. Patent No. 6,056,993). Applicant respectfully disagrees.

The Examiner states that “Edwin et al teach a mandrel having a gear as mentioned above but **Edwin et al are silent concerning the gear being supported on the mandrel and designed so as to allow for a spacing between a majority of an outer periphery of the gear and an inner surface of the stent.**” The Examiner further states that “in light of the teaching by Leidner et al, that the mandrel can change in size or diameter, it would have been within the purview of one skilled in the art to provide a smaller diameter mandrel having a smaller diameter gear so as to result in a spacing between an outer periphery of the gear with respect to the inner surface of a given stent.”

To establish a prima facie case of obviousness of a claimed invention, **all of the claim limitations must be taught or suggested by the prior art.** (emphasis added) *In Re Royka*, 490 F.2d 981, 180, USPQ 580 (CCPA 1974). Leidner et al. teach “a rotating mandrel 12” that acts as a “prosthesis mold.” (Leidner et al., col. 5, lines 28-29)

As indicated by the Examiner, Leidner et al. teaches that “mandrel 12 is easily removed and replaced with a mandrel having a **different diameter**, allowing prosthesis 9 to be **formed with any desired inner diameter** within a wide size range merely by choosing and inserting an **appropriately sized mandrel** into device 10.” (Leidner et al., col. 5, lines 63-67) Leidner et al. further teaches that “the exterior diameter of mandrel 12 will **determine the inner diameter size of prosthesis 9**.” (Leidner et al., col. 5, lines 60-62) Therefore, Edwin et al. in view of Leidner et al. appears to teach stents “formed with any desired inner diameter” on the “splined or textured” mandrels of Edwin et al. (col. 10, line 42) in which the “exterior diameter of the mandrel will determine the inner diameter” of the stents.

#### **Claim 50**

As indicated by the Examiner, Edwin et al. do not teach the feature of claim 50 “gear supported by the mandrel having a diameter greater than a diameter of the mandrel and a diameter smaller than an inner diameter of the stent as positioned on the gear to allow for spacing between a majority of an outer periphery of the gear and an inner surface of the stent for minimizing contact between the outer periphery of the gear and the inner surface of the stent.” As indicated above, Leidner et al. do not cure the deficiency of Edwin et al. Accordingly, claim 50 is allowable over Edwin et al. in view of Leidner et al.

Even if Leidner et al. did cure the noted deficiency of Edwin et al., there is no teaching, suggestion, or motivation to combine the references. “Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some **teaching, suggestion, or motivation** to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art.” MPEP 2143.01. Edwin et al. teach:

A method for selectively bonding layers of polymeric material ... to create endoluminal vascular devices. In a preferred method the selective bonding is achieved by **applying pressure** to selected areas using a textured mandrel. This permits a stent device to be encapsulated between two layers of ePTFE with unbonded slip pockets to accommodate movement of the structural members of the stent. This allows **stent compression** with minimal force and promotes a low profile of the **compressed device**. (Edwin et al., Abstract)

Thus, Edwin et al. is a method of forming a stent over a mandrel which requires “a mandrel with the structural members of the stent **fitting into the valleys and the apices** of the ridges or raised portions falling at discrete points within the open areas of the stent.” (Edwin et al., col. 12, lines 41-43) There is no motivation to combine Edwin et al. with a reference to have the feature in claim 50 of a “stent as positioned on the gear to allow for spacing between a majority of an outer periphery of the gear and an inner surface of the stent for minimizing contact between the outer periphery of the gear and the inner surface of the stent.”

Due to the arguments above, applicant requests removal of the obviousness rejection of claim 50.

#### **Claims 46-49**

As indicated above, Edwin et al. teaches “a mandrel with the structural members of the stent **fitting into the valleys and the apices** of the ridges or raised portions falling at discrete points within the open areas of the stent.” (Edwin et al., col. 12, lines 41-43) Therefore, Edwin et al. does not teach the feature of claim 46 “a gear axis through a center of the gear” that “is parallel or substantially parallel to and offset from a stent axis through a center of the stent.”

Furthermore, also as indicated above, in Leidner et al., “the exterior diameter of mandrel 12 will **determine the inner diameter size of prosthesis 9**, (Leidner et al., col. 5, lines 60-62) since the stent is formed around the mandrel. Thus, Leidner et al. do not teach “a gear axis through a center of the gear” that “is parallel or substantially parallel to and offset from a stent

axis through a center of the stent.” Thus, Leidner et al. do not cure the deficiency of Edwin et al.

Accordingly, claim 46 is allowable over Edwin et al. in view of Leidner et al.

If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Applicant submits that claim 46 is nonobvious. Claim 47-49 depend from claim 46 and are allowable for at least the same reason that claim 46 is allowable. Therefore, applicant requests removal of the obviousness rejections of claims 46-49.

**CONCLUSION**

Claims 46-51, 53, and 54 are pending in this application. Applicant respectfully submits that rejected Claims 46-51, 53, and 54 are in condition for allowance. Applicant respectfully requests the Examiner to enter the foregoing amendments and pass the case to issue.

Applicant does not believe that any fee is due with this response. If such is incorrect the Commissioner is authorized to charge any fee(s) due with this response to office action to Squire, Sanders & Dempsey L.L.P. Deposit Account No. 07-1850.

If the Examiner has any questions or concerns, the Examiner is invited to telephone the undersigned attorney at (415) 954-0297.

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Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Mark Lupkowski', is written over a horizontal line.

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